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# Psychology and the At Risk Mental State

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Over the last decade there have been orchestrated efforts to detect and intervene during the earliest stages of psychotic illness. This article reviews some of the literature and highlights the current and future contributions of psychology to a rapidly expanding area of research and clinical practice.

## **The At Risk Mental State**

The notion of being able to detect and subsequently treat individuals within the earliest stages of psychosis (a pre-psychotic state), is often attributed to Harry Sullivan in the late 1920s:

*‘The great number of our patients have shown for years before the break, clear signs of coming trouble...I feel certain that many incipient cases might be arrested before the efficient contact with reality is completely suspended, and a long stay in institutions made necessary.’* (Sullivan, 1927/1994, p. 135)

Some of the earliest efforts to identify this early stage or identify individuals ‘at risk’ of becoming psychotic, employed genetic predisposition techniques by enrolling children and adolescents with a first and second degree relative with a psychotic illness and monitoring them over a period of years and even decades. Other researchers focused on the retrospective reconstruction of potential symptoms

whereby patients diagnosed with a first episode of psychosis, their relatives and others involved in their care were asked to comment and describe any changes that preceded the illness.

The research confirmed Sullivan's beliefs that some sort of pre-psychotic phase exists marked by periods of altered functioning or low grade symptomology and characterized by various features such as depressed mood, anxiety and sub threshold psychotic symptoms (Yung & McGorry, 1996). Classifying individuals 'at risk' through genetic predisposition on the other hand had not been as successful, since many participants never became psychotic despite extensive follow up periods. This pre-psychotic stage became known as the prodrome. This term, although appropriate for retrospective purposes, was not for the prospective study of 'at risk' individuals since it suggests that all individuals exhibiting such difficulties and symptoms would go on to develop full blown psychosis, which is both deterministic and simply not the case (Yung, 2003). Instead the term '*At Risk Mental State*' or '*ARMS*' is preferred and describes a state that confers a high but not inevitable risk of developing a psychotic disorder in the near future (McGorry & Singh, 1995)

In the last decade, research groups have combined the work of genetic disposition and the clinical features observed during the prodrome, to construct criteria that have been more successful and powerful in identifying those 'at risk'. The most notable of these is the Personal Assessment and Crisis Evaluation (PACE) clinic in Australia who first developed the Melbourne Criteria (Yung et al., 2008; Table 1).

**Table 1: The Melbourne Criteria**

- Trait and State Risk Factor group – individual diagnosed with schizotypal personality disorder or has a first degree relative with a psychotic disorder.
- Attenuated Psychosis group – individual has experienced sub-threshold positive psychotic symptoms (i.e. symptoms not severe enough or frequent enough to be deemed psychotic).
- Brief Limited Intermittent Psychotic Symptoms group – individual has experienced full psychotic symptoms that have not lasted longer than a week and have spontaneously abated.

In all groups the individual must be aged between 14-30 years of age, seeking help from a clinical service and demonstrate significant deterioration in mental state and/or functioning.

It is important to note here that the ability to identify individuals who will one day become psychotic is by no means foolproof and in fact figures range enormously (9-54%) over follow up periods of 1-2 years (Yung et al., 2008). These figures still represent vast improvements and significantly shorter follow up periods in comparison to genetic disposition techniques alone. It should be noted that ARMS individuals are sufficiently distressed to be seeking help from clinical services, whilst almost all present or subsequently develop an anxious or depressive illness. Their identification and treatment is therefore considered ethical and appropriate, despite the fact that many will never become psychotic. In the U.K., the Melbourne criteria are widely adopted by Early Intervention in Psychosis (EIP) and/or Child and

Adolescent Mental Health services (CAMHS) who are usually responsible for the assessment and subsequent care of ARMS individuals.

Although identification and assessment is improving, greater effort is now required to enhance the knowledge of clinicians outside of EIP services who could be working with undetected ARMS cases requiring referral. Under detection is a real concern given the non-specific nature of symptoms, the potential masking of symptoms by co-morbid conditions and in CAMHS where neuro-maturational and psychological changes are naturally occurring in adolescents (Yung & McGorry, 1996). A number of EIP services already run training and awareness raising sessions to help clinicians identify psychosis, however there is a need to broaden this training to improve the detection of those deemed to be 'at risk' of developing psychosis.

### **Psychological interventions during the At Risk Mental State**

Improved identification of 'at risk' individuals has led to the exploration of effective interventions that target current symptoms, but most importantly may delay or even prevent psychosis altogether (McGlashan et al., 2007). Cognitive Behavioural Therapy (CBT) was perceived to be an appropriate choice since it had already demonstrated efficacy in acute and first episode psychosis and perhaps most importantly did not have the stigmatizing and harmful side effects of medication. In light of this, the first randomized controlled trial of ARMS individuals compared the efficacy of CBT in conjunction with low dose antipsychotic medication against a needs based intervention comprising of supportive psychotherapy (McGorry et al., 2002). Initial findings suggested that significantly fewer participants within the

CBT/medication group had made the transition to full psychosis by the end of a six month treatment stage; although later follow ups have shown that these differences have since disappeared

A major criticism, that the individual contributions of CBT could not be extrapolated, led to the development of the EDIE trial in Manchester. This randomised control trial of CBT versus a treatment as usual group demonstrated that six months of CBT brought about significant reductions in progression to psychosis, significant reductions in the likelihood of being prescribed antipsychotic medication and significantly improved symptomology (Morrison et al., 2004). The EDIE trial has not been without its critics and potential methodological flaws in the study which helped enlarge the apparent treatment effect have been debated (David & Morrison, 2005). EDIEs findings and the criticisms aimed at the study have led the authors to instigate another trial (EDIE-2) with a more rigorous protocol and randomization procedure despite the benefits of CBT having been confirmed more recently elsewhere (Bechdolf et al., 2008).

Beyond CBT, pilot studies of Psycho Educational Multi-Family Group (PMFG) treatment with the 'at risk' client group have shown improvements in symptoms and functioning alongside acceptable levels of user satisfaction and adherence (O'Brien et al., 2007). Within the U.K., EIP services are offering other psychological therapies too. Although less intensive and evidence based, stress management and supportive interpersonal therapy have important roles to play.

In the absence of official treatment guidelines, leading consultants and researchers (most notably from the PACE clinic and EDIE trials) propose that more benign interventions such as psychological therapies should be adopted as a first option strategy. It is highly likely that with an ever growing evidence base, psychologists will be required by the NHS and EIP services to co-ordinate and train others in their application. These therapies may prove more acceptable to many patients because of the less controversial nature of the therapy as opposed to low dose medication. Without infallible prediction, many young people who will never develop psychosis could be treated with potentially harmful agents if medication was readily prescribed (Heinssen, Perkins, Appelbaum, & Fenton, 2001).

### **Stigma, labeling and psycho-education**

The use of the 'ARMS' label within clinical practice and how the term is perceived and understood by service users and careers is an area in need of investigation, given its potential to create anxiety and stigmatization (Heinssen et al., 2001). Research from genetic testing for conditions such as Huntington's disease and breast cancer show that people are not always keen to know one's own risk status for example and it is unclear whether this is the case for psychosis (Corcoran, Malaspina, & Hercher, 2005). Preliminary research and informal observations suggest that young people and their families experience a range of feelings and emotions when presented with the ARMS term. Some experience relief and tend to feel 'better', possibly because they are deemed not to be psychotic (Yung et al., 2007), whilst others demonstrate concern, scepticism and denial to the news (McGlashan et al., 2007). Attitudes and beliefs held by the young person and their family and how they influence family dynamics (a

factor significantly associated with positive short term outcomes; O'Brien et al., 2008) could be important in these early stages of care. Attitudes held both within and outside the family by parents, siblings, friends, schools and future employers may exert great influences on these young people; subtly affecting the individual's relationships, opportunities and aspirations and in turn leading to self fulfilling prophecies (Corcoran et al., 2005). All these issues are clearly worthy of further investigation.

In terms of clinical practice, psychologists working within EIP services will undoubtedly have a key role to play in ensuring 'at risk' individuals and their families understand that transition to psychosis is not inevitable or predetermined. Providing sufficient time for families to ask questions (a thorough debrief) and supplying appropriate psycho-educational material may or may not be adequate in resolving any anxieties and concerns. However, common sense suggests that clinical services should offer this to all young people with ARMS until clear guidelines are created.

### **Concluding remarks**

Psychology has a key role to play in the future of ARMS research and the development/evaluation of clinical practices. Early trials using psychological therapies demonstrate positive outcomes but more research is required, especially focussing on the subjective experiences of service users and their families during the earliest stages of psychosis.



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